

ABSTRACT

A motor includes a stator having multiple conductors that create a plurality of magnetic fields when electrical current is conducted through the conductors. The stator has a pair of opposing end surfaces in contact with each other forming a toroidal core. A monolithic body of phase change material substantially encapsulates the conductors and holds said toroidal core in place. The stator is formed by laminating strips together to form a linear core preform, winding wire around poles extending from a side of the core preform, then rolling the preform to bring its two ends together to form the toroidal core. Hard disc drives using the motor, and methods of constructing the motor and hard disc drives are also disclosed.